IN THE CLAIMS

Please enter the below claim amendments.

1. (previously presented) A method of equalizing output signals from a plurality of signal paths, each signal path having a microphone, the method comprising the steps of:

(a) applying a predictable noise to each signal path to generate an output noise;

(b) identifying a transfer function of each signal path based on the corresponding output noise;

(c) based on a single selected function, determining a filtering function for each signal path such that the product of the transfer function and the filtering function is the selected function; and

(d) applying the filtering function for each signal path to the corresponding transfer function to generate the selected function such that the output signals from the signal paths are substantially equal with respect to phase or phase and magnitude.

2. (previously presented) A method according to claim 1, wherein the selected function is the transfer function for one of the signal paths.

3. (previously presented) A method according to claim 1, wherein the selected function is a common factor, and the filtering function is determined such that the product of the transfer function and the filtering function is the common factor.

4. (previously presented) A method according to claim 1, wherein the step of applying the filtering function comprises steps of:

(a) providing a filter to each signal path; and

(b) applying the filtering function for each signal path to the corresponding filter.

5. (currently amended) A method according to claim 1, wherein:
the step of applying a predictable noise comprises, for each signal path, steps of:

(a) providing a first predictable noise sample signal to the signal path to produce the output noise; and

(b) providing a second predictable noise sample signal, the second predictable noise sample signal having a property ~~**corresponding**~~ **substantially identical** to the first predictable noise sample signal **and being substantially identical to the first predictable noise sample signal on a sample-by-sample basis,**

the step of identifying a transfer function comprises, for each signal path, a step of:

(c) processing the output noise and the second predictable noise sample signal to identify the transfer function of its corresponding signal path.

6. (cancelled)

7. (previously presented) A method according to claim 1, wherein:

the step of applying a predictable noise comprises, for each signal path, steps of:

(a) acoustically providing a first predictable noise sample to the microphone with a propagation time delay to generate the output noise; and

(b) providing a noise signal corresponding to the first predictable noise sample with the propagation time delay,

the step of identifying a transfer function comprises, for each signal path, a step of:

(c) processing the output noise and the noise signal to identify the transfer function of its corresponding signal path.

8. (previously presented) A method according to claim 7, wherein the step of providing a first predictable noise sample comprises steps of:

(a)generating a first predictable digital noise signal, and

(b) converting the first predictable digital noise signal into the first predictable noise sample,

the step of providing a noise signal comprises steps of:

(c) generating a second predictable digital noise signal, and

(d) converting the second predictable digital noise signal into the noise signal.

9. (previously presented) A method according to claim 8, wherein the step of converting the second predictable digital noise signal comprises steps of:

(a) synchronizing the second predictable digital noise signal with the first predictable digital noise signal;

(b) delaying the second predictable digital noise signal by same amount of time as the propagation delay time; and

(c) compensating the second predictable digital noise signal for the conversion factor of the first predictable digital noise signal.

10. (currently amended) A method according to claim **[[6]]** **1**, wherein for each signal path, the transfer function of the signal path is a transfer function of the microphone.

11. (previously presented) A method according to claim 7, wherein the propagation delay time is selected to be an integer multiple of the first predictable noise sample.

12. (previously presented) A method according to claim 8, wherein the step of generating a first predictable digital noise signal includes a step of utilizing a maximum length sequence generator to generate the first predictable digital noise signal.

13. (currently amended) A method according to claim 8, wherein the step of generating a second predictable digital noise signal includes a step of utilizing a maximum length sequence generator to generate the second predictable digital noise signal **that is substantially identical to the first predictable digital noise signal on a sample-by-sample basis**.

14. (previously presented) A method according to claim 8, wherein each of the first predictable digital noise signal and the second predictable digital noise signal comprises a white noise signal.

15. (previously presented) A method according to claim 8, wherein each of the first predictable digital noise signal and the second predictable digital noise signal comprises a random noise signal.

16. (previously presented) An apparatus for equalizing output signals from a plurality of signal paths, each signal path having a microphone, the apparatus comprising:

(a) a module for applying a predictable noise to each signal path to generate an output noise;

(b) a module for identifying a transfer function of each signal path based on the corresponding output noise;

(c) a module determining, based on a single selected function, a filtering function for each signal path such that the product of the transfer function and the filtering function is the selected function; and

(d) a module for applying the filtering function for each signal path to the corresponding transfer function to generate the selected function such that the output signals from the signal paths are substantially equal with respect to phase or magnitude and phase.

17. (previously presented) An apparatus according to claim 16, wherein the selected function is the transfer function for one of the signal paths.

18. (previously presented) An apparatus according to claim 16, wherein the selected function is a common factor, and the filtering function is determined such that the product of the transfer

function and the filtering function is the common factor.

19. (previously presented) An apparatus according to claim 16, wherein the module for applying the filtering function comprises:

(a) a filter provided to each signal path; and

(b) a module for loading the filtering function for each signal path to the corresponding filter.

20. (currently amended) An apparatus according to claim 16, wherein:

the module for applying a predictable noise comprises, for each signal path:

(a) a noise generator for providing a first predictable noise sample signal to the signal path to produce the output noise and providing a second predictable noise sample signal, the second predictable noise sample signal having a property ~~corresponding~~ **substantially identical** to the first predictable noise sample signal **and being substantially identical to the first predictable noise sample signal on a sample-by-sample basis,**

the identifying module comprises, for each signal path:

(b) a module for processing the output noise and the second predictable noise sample signal to identify the transfer function of its corresponding signal path.

21. (previously presented) An apparatus according to claim 20, wherein the microphone is capable of converting a sound signal to an electrical analog signal, and each signal path further includes an analog-to-digital converter coupled to the microphone for converting the electrical analog signal into a digital signal.

22. (previously presented) An apparatus according to claim 16, wherein the microphone is capable of converting a sound signal to an electrical analog signal, and each signal path further includes an analog-to-digital converter coupled to the microphone for converting the electrical analog signal into a digital signal, wherein:

the module for applying a predictable noise comprises, for each signal path:

(a) a module for acoustically providing a first predictable noise sample to the microphone with a propagation time delay to produce the output noise; and

(b) a module for providing a noise signal corresponding to the first predictable noise sample with the propagation time delay,

the module for identifying a filtering function comprises, for each signal path:

(c) a module for processing the output noise and the noise signal to identify the transfer

function of its corresponding signal path.

23. (previously presented) An apparatus according to claim 22, wherein the module for providing a first predictable noise sample comprises:

(a) a first noise generator for generating a first predictable digital noise signal; and

(b) a first converter for converting the first predictable digital noise signal into the first predictable noise sample,

the module for providing a noise signal comprises:

(c) a module for providing a second predictable digital noise signal; and

(d) a second converter for converting the second predictable digital noise signal into the noise signal.

24. (previously presented) An apparatus according to claim 23, wherein the second converter comprises:

(a) a synthesizer for synthesizing the second predictable digital noise signal with the first predictable digital noise signal;

(b) a module for delaying the second predictable digital noise signal by same amount of time as the propagation delay time; and

(c) a module for compensating the second predictable digital noise signal for the conversion factor of the first predictable digital noise signal.

25. (currently amended) An apparatus according to claim 23, wherein the first noise generator includes a maximum length sequence generator **for generating the first predictable digital noise signal that is substantially identical to the second predictable digital noise signal on a sample-by-sample basis**.

26. (previously presented) An apparatus according to claim 23, wherein the first converter includes:

a digital-to-analog converter for converting the first predictable digital noise signal into an analog noise signal, and

a loud speaker for providing the analog noise signal to the microphone.

27. (currently amended) An apparatus according to claim 23, wherein **the first predictable digital noise signal is a first maximum length sequence noise,** the second predictable digital noise signal **being** ~~**is generated by**~~ a **second** maximum length sequence ~~**generator**~~ **noise that is substantially identical to the first maximum length sequence noise on a sample-by-sample**

basis.

28. (previously presented) An apparatus according to claim 21, wherein for each signal path, the transfer function of the signal path is a transfer function of the microphone.

29. (previously presented) An apparatus according to claim 22, wherein the propagation delay time is selected to be an integer multiple of the first predictable noise sample.

30. (previously presented) An apparatus according to claim 23, wherein each of the first predictable noise signal and the second predictable digital noise signal comprises a white noise signal.

31. (previously presented) An apparatus according to claim 23, wherein each of the first predictable noise signal and the second predictable digital noise signal comprises a random noise signal.

32. (currently amended) An apparatus according to claim 23, wherein **the first noise generator includes a maximum length sequence generator,** the first predictable digital noise signal and the second predictable digital noise signal ~~are~~ **being** generated by the ~~first noise generator~~ **maximum length sequence generator**.

33. (currently amended) **A method for a** [[A]] listening device comprising [[:]] a plurality of signal paths for transmitting sound signals to a user, each signal path having a microphone, outputs from the signal paths being equalized using the method according to claim 1.

34. (currently amended) **A method for a** [[A]] hearing aid comprising [[:]] a plurality of signal paths for transmitting sound signals to a user, each signal path having a microphone, outputs from the signal paths being equalized using the method according to claim 1.

35. (currently amended) **A method for a** [[A]] headset comprising [[:]] a plurality of signal paths for transmitting sound signals to a user, each signal path having a microphone, outputs from the signal paths being equalized using the method according to claim 1.

36. (previously presented) A listening device comprising:

a plurality of signal paths for transmitting sound signals to a user, each signal path having a microphone, outputs from the signal paths being equalized by the apparatus according to claim 16.

37. (previously presented) A hearing aid comprising:

a plurality of signal paths for transmitting sound signals to a user, each signal path having a microphone, outputs from the signal paths being equalized by the apparatus according to claim

16.

38. (previously presented) A headset comprising:

a plurality of signal paths for transmitting sound signals to a user, each signal path having a microphone, outputs from the signal paths being equalized by the apparatus according to claim 16.

39. (currently amended) A listening device **according to claim 36,** comprising:

~~**a plurality of signal paths for transmitting sound signals to a user, each signal path having a microphone, and**~~

a signal equalization filter provided for each signal path, wherein the function of the signal equalization filter is determined by the ~~**method**~~ **apparatus** according to claim [[1]] **16** and is loaded to the signal equalization filter.

40. (currently amended) A hearing aid **according to claim 37,** comprising:

~~**a plurality of signal paths for transmitting sound signals to a user, each signal path having a microphone, and**~~

a signal equalization filter provided for each signal path, wherein the function of the signal equalization filter is determined by the ~~**method**~~ **apparatus** according to claim [[1]] **16** and is loaded to the signal equalization filter.

41. (currently amended) A headset **according to claim 38,** comprising:

~~**a plurality of signal paths for transmitting sound signals to a user, each signal path having a microphone, and**~~

a signal equalization filter provided for each signal path, wherein the function of the signal equalization filter is determined by the ~~**method**~~ **apparatus** according to claim [[1]] **16** and is loaded to the signal equalization filter.

42. (previously presented) A method of providing sound signals to a user through a system including a plurality of signal paths, each signal path having a microphone, the method comprising steps of:

preparing a filtering function for each signal path, including the steps of:

(a) applying a predictable noise to each signal path to generate an output noise;

(b) identifying a transfer function of each signal path based on the corresponding output noise; and

(c) determining, based on a single selected function, the filtering function for each signal

path such that the product of the transfer function and the filtering function is the selected function,

operating the system, including the steps of:

(d) applying the filtering function for each signal path to the corresponding transfer function to generate the selected function, and

(e) providing the sound signals to the signal paths, whereby the sound signals output from the signal paths are substantially equal with respect to phase or phase and magnitude.

43. (previously presented) A sound system comprising:

a system for providing sound signals to a user, including:

(a) a plurality of signal paths for transmitting the sound signals to the user, each signal path including a microphone; and

(b) a filter provided to each signal path,

an equalizing module, including:

(c) a circuit for applying a predictable noise to each signal path to generate an output noise;

(d) an identification circuit for identifying a transfer function of each signal path based on the corresponding output noise; and

(e) a determination circuit for determining, based on a single selected function, a filtering function for each signal path such that the product of the transfer function and the filtering function is the selected function,

when the signal paths transfer the sound signals to the user, the filtering function being applied to the corresponding filter to generate the selected function, whereby the sound signals from the sound providing system are substantially equal with respect to phase or phase and magnitude.

44. (previously presented) A sound system according to claim 43, wherein the selected function is the transfer function for one of the signal paths.

45. (previously presented) A sound system according to claim 43, wherein the selected function is a common factor, and the filtering function is determined such that the product of the transfer function and the filtering function is the common factor.

46. (currently amended) A sound system according to claim 43, wherein:

the circuit for applying a predictable noise signal comprises, for each signal path:

(a) a module for providing a first predictable noise signal to the microphone to produce the output noise; and

(b) a module for providing a second predictable noise signal, the second predictable noise signal having a property ~~corresponding~~ **substantially identical** to the first predictable noise signal **and being substantially identical to the first predictable noise signal on a sample-by-sample basis,**

the identifying circuit comprises, for each signal path:

(c) a module for processing the output signal and the second predictable noise signal.

47. (previously presented) A sound system according to claim 46, wherein the module for providing a first predictable noise signal includes a maximum length sequence generator for generating the first predictable noise signal.

48. (previously presented) A sound system according to claim 47, wherein the maximum length sequence generator generates the second predictable noise signal.

49. (previously presented) An apparatus according to claim 16, wherein the module for identifying a transfer function performs an Auto Regressive Moving Average (ARMA) to estimate the transfer function.

50. (previously presented) A sound system according to claim 43, wherein the identifying circuit performs an Auto Regressive Moving Average (ARMA) to estimate the transfer function.